1: Beaglehole and Beaglehole — Pukapukans

621, 423

[The communal ownership of and legal aspects of the reserve food lands have been classified in 621 and 423. For protection by village guards, see category 625. For cultivation and use of, see appropriate categories.]

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ing watching a competition such as coconut husking, or sitting and talking, wrap their arms about each other and lean on each other's shoulders. Though any adult adopts this position, it is particularly striking to the observer when it occurs among men. When relaxing, women lean against other women. A woman frequently lies with her head on the lap of another woman. Less frequently, a young woman, watching a group sport, leans against an older man and wraps her arms over his shoulder. Occasionally the older man may rest his head in her lap. These attitudes, taken up in large or small gatherings, occasion no comment of any nature nor any embarrassment to the parties concerned.

ENVIRONMENT

Topography

The atoll of Pukapuka lies about 390 miles northeast of Samoa, 715 miles northwest of Rarotonga. Its nearest neighbor, Nassau, is about 42 miles southeast and was formerly occupied by a colony from Pukapuka.

Pukapuka consists of three islets with a land area of 1,250 acres, and a few sand banks grouped around a barrier reef (fig.1,*a*) that encloses a lagoon about 5 miles long and 2 to 3 miles wide. Pukapuka, the northern islet, is about 1 mile wide and has a greatest depth of about ½ mile. The entire population of the atoll lives on the lagoon shore of Pukapuka (fig.1,*b*). The word Pukapuka has no meaning but various etymologies. The old name for the atoll, Te Ulu-o-te-watu (Head-of-the-rock), refers to the legendary origin of the islands and is commonly used in old chants. The occupied part of this islet is generally called Wale (Home). The two southern islets, Motu Ko and Motu Kotawa, form reserve food lands (*motu*—translated throughout as reserve) and are visited occasionally for food and copra supplies. Each reserve has a small permanent settlement of houses occupied during these visits.

The landing passage (*awa*) on the western side of Pukapuka (Wale) is used by canoes and flat-bottomed boats only. All supplies and passengers are transferred outside the reef to native canoes for transport across the reef to the landing beach. The western-most section of the islet is occupied by the people of Yato village. This village extends across the causeway which spans an arm of the lagoon and occupies further ground east as far as the present London Missionary Society church. Formerly this eastern site was the only site of Yato village. The building of the causeway about 60 years ago and an epidemic sickness suggested the transfer of part of the village to its present western site. The boundary of this village runs from the lagoon beach through the middle of the church and so to the outer beach. The section of land north of the village road embraces one reserve of Yato called Nius. The other reserve is Motu Kotawa.

The houses of Loto village are contiguous with those of the eastern section of Yato. They stretch along the lagoon and across the island to the outer beach, a location adopted after the tidal wave of 1914. North of the village road running through Loto stretches the only reserve of Loto, Uia, which extends to the outer beach. The third and eastern-

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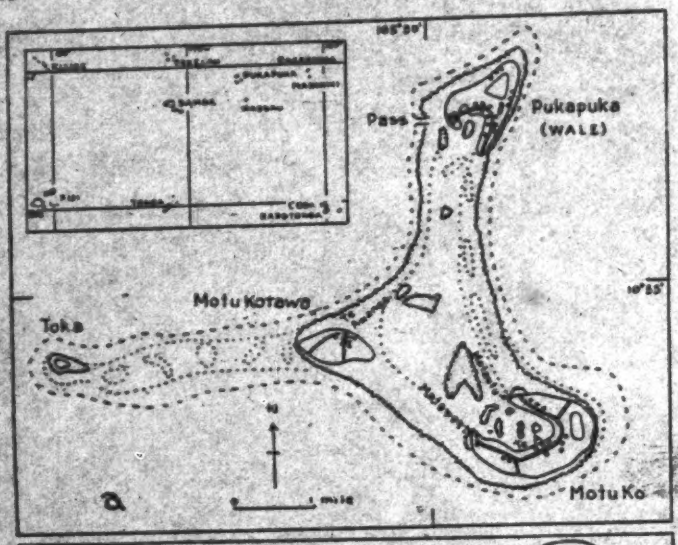

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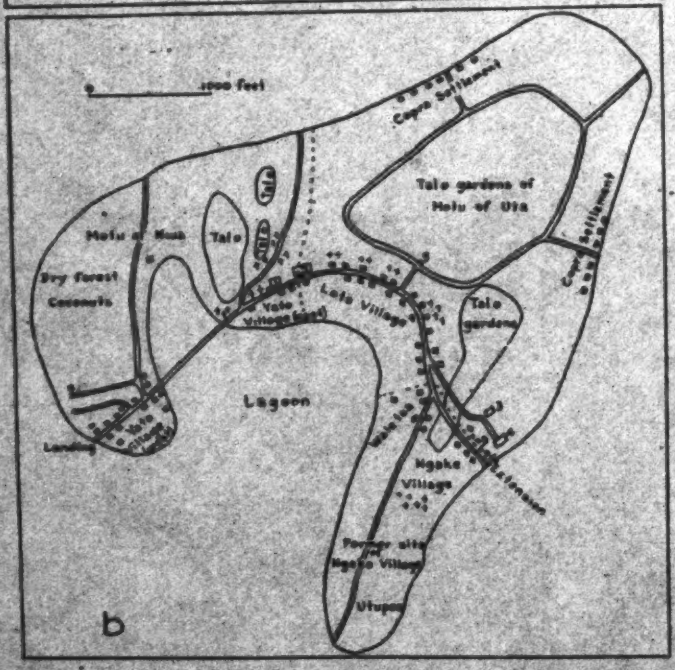

FIGURE 1.—Maps of Pukapuka. *a*, atoll of Pukapuka, showing relation of the three islets, and reef circuit. *b*, islet of Pukapuka or Wale: dotted lines indicate village boundaries, solid lines main paths, and crosses principal cemeteries. 1, school; 2, London Missionary Society church; 3, courthouse; 4, residency; 5, old watch house at Matala.

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most village, Ngake, formerly occupied Utupoa, the southeastern arm of Wale. After the wave of 1914, houses were rebuilt on the lagoon frontage contiguous to the houses of Loto, and other houses were built on a section of land extending from the lagoon to the outer beach. This section of Ngake faces the outer beach extension of Loto. The two extensions occupy opposite sides of the village road. The reserve of Ngake is Motu Ko. Land at Utupoa is also used as a reserve, but sections here are owned by individual lineages and not by the village as a whole.

All three islets are intersected by paths and trails. The main road (*ngutuala*) of Wale extends from the landing beach, through Yato, across the causeway, and through Loto. One branch makes a right-angled turn and passes to the outer beach, to the court-house, residency, and the outer sections of Loto and Ngake. The other branch runs through the lagoon section of Ngake. Formerly it led to the Utupoa site of Ngake. This wide main road is well kept and bordered by coral stones. From it branch off trails and smaller paths leading to the outer beaches and the reserves. These paths, as well as the many paths on Motu Ko and Motu Kotawa, are named after persons, either contemporaries or those now dead, who originally cut the clearings through the bush. Contemporaries cheerfully accept the responsibility of keeping their paths clear, and descendants of those after whom the paths are named accept the same responsibility.

Each village and reserve has a number of alternate names that are frequently referred to in chants and conversation:

Village or Reserve	Old Names	Remarks
Ngake	Pana-ule	'Erect-penis'
	Te Yawea	—
	Te Langaikula	Refers to kilts (titi) of pandanus dyed red, worn by Ngake villagers at festivals.
	Kilimanu	'Bird Skin', name taken when birds were plentiful on Motu Ko.
Loto	Awalua	Name of legendary land.
	Kotipolo	'Cutting of polo leaves'.
	Yaemata	—
Yato	Takanumi	'Circle' ?
	Ulekawa	'Penis-of-sennit' ?
Motu Kotawa	Te Nuku-ya-o-Mataliki	Sacred-isle-of-Mataliki'
Motu Ko	Te Nuku-loa-o-Mataliki	Long-isle-of-Mataliki'

The western half of the lagoon, including Motu Kotawa and the western half of Wale, is also called Te Lau-la-lalo no Te Ulu-o-te-watu (Lower-part-of Head-of-the-rock). The eastern half, including Motu Ko and the eastern half of Wale, is called Te Lau-la-lunga no Te Ulu-o-te-watu (Upper-part-of Head-of-the-rock).

PLACE NAMES

A list of 140 representative place names, including all the names of paths and trails, talo gardens, land section, household lots and other division names collected in Pukapuka, is on file in the library of Bernice P. Bishop Museum.

[1] Mataliki (*mata aliki*, chiefly eyes) refers to the lineage god supervising these reserves and is not to be confused with Mataliki (*mata iiki*, tiny eyes), the name of the Pleiades.

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ECONOMIC ORGANIZATION

CONTROL OF WEALTH

471 421 731 621

In former times, the island as a whole apparently did not function in the control of land, reefs, or other native wealth. Today, however, there are on Wale five talo beds (*ui*) which are controlled by the island. These are termed *ui teenua*. After the tidal wave of 1914, the Island Council divided some of the talo lands owned by the maternal lineages among all the people of the island in order to tide over a temporary food shortage. These lands have remained under the control of the whole island since that time. Their names are: Ui lua wunui (2 beds), Ui alapai, Ui kolonui, Ui angatonu.

In economic matters today as formerly, the ultimate controlling units are the village groups. These are independent of each other and may utilize their lands and reefs in any way they wish; in practice, however, they all conform to the same pattern of control.

VILLAGE PROPERTY

REEFS

423 621

The barrier reef (*te ayunga loa*) and all fishing grounds on the reef, inside and outside the lagoon, are divided among the villages as follows:

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The reef from Wale to Matautu, the northern point of Motu Ko, belongs to Ngake; no men or canoes other than those of Ngake are allowed on or near this part of the reef. The reef between Matawea, the western point of Motu Ko, and Motu Kotawa is divided into halves (*itu*), one half belonging to Ngake, the other to Yato. The reef fishing from Motu Kotawa to Wale belongs to Yato, but because lagoon fishing in former times was controlled by Ngake, the men of Yato could fish only outside this reef. Without permission from Ngake villagers men of Yato could not go to their reserve by canoe across the lagoon but had either to coast along the outside of the reef or to walk along the reef shelf. The outer, northern reef, running round the reserve of Niua (the northwestern side of Wale) as far as the boundary of the Loto reserve of Uta, was controlled by Yato; the outer reef from this point to the eastern boundary of Uta was controlled by Loto; the rest of the reef running past Utupoa to the main reef was controlled by Ngake. Each village had the right to the beach and lagoon fishing on its own shore (*tukuloi*). The rest of the lagoon away from the village frontages belonged to Ngake.

476 431 784

The control of reefs, though apparently weighted heavily against the village of Loto, worked with a certain flexibility. The men of Ngake announced at frequent intervals to the men of the other two villages that they might fish in the lagoon for one moon. At the end of the period the lagoon was tapu for all save Ngake men. All economic tapus (*lani*) were supported by supernatural sanctions. The two villages benefiting by this generosity took gifts of food, usually nuts and talo, to Ngake in payment for benefits received. Special gifts were sometimes given as when Yato made an expedition to Motu Kotawa and returned with extra supplies of *takupu* birds (tern).

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

The open sea opposite each reef was controlled by the village owning the reef and only men from that village might go deep-sea fishing there. As the canoe channel on the western reef was controlled by Yato village, men from Loto and Ngake had to receive permission before taking their canoes across the break (*avu*) in the reef at this point. This was a frequent request, for the only other break close to the villages is on the north-eastern side of Wale, rarely as sheltered and manageable as the western side. Permission was given as a matter of generosity. Trespassers in the fishing reserves of other villages were punished by fines in nuts levied by the guards (p. 37) of the village whose reef was violated.

Before the causeway (*kolo*) was built across the western arm of the lagoon on Wale, this lagoon indentation was considered a part of the reserve of Niua. After the causeway was constructed, Yato village still retained control of the "bay", and turned it into a fish pond. It is simply called *te loto*, the name for any enclosed water. This pond contains many *avo* fish (white mullet), which fatten on the algae growing on the lagoon bottom. The fish are tapu for most of the year, but at certain arranged times, generally at the end of each month, the pond is opened to fishing parties from Yato for one or more days. Fishing is sometimes an individual matter; at other times all the men of Yato fish together on the same day. The catch is divided among all the people of the village. Some of this fish finds its way through gift to other villages, but the sole right to fish in this pond is jealously guarded by Yato men.

LANDS AND BOUNDARIES

The land on the three islets is divided among the villages. Each village retains control of the lands specifically set aside as communal village lands. The rest of the land within the village boundaries is controlled by the paternal and maternal lineages. The village boundaries (*tuakoi*) on Wale are shown on the map (fig. 1,*b*).

The present boundary lines between the villages date from a period just after the great seismic wave of about 300 years ago. After this catastrophe, in the reign of the chief Maina or of his successors, Tuiavanga and Alatakupu, it was decided to realign the boundaries to take care of population growth. The technique used is called *tutuki*, a form of stick wrestling. A weapon (*kaio*) of *uatau* wood, about 4 to 6 feet long, is held by two men facing each other, each trying to push his opponent backward. The boundary advances or retreats according to the position of the weapon. In the contest in question, all three villages participated, lined up along a provisional boundary running from lagoon to outer beach near the present church.

Loto found Yato on the west and Ngake on the east. Before the contest commenced, the high chief (*aliki uoto*) went to the sacred place of the goddess Tava and requested

1. [See p18, category III— analyst]

I:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

her to punish any man who violated the rule that no man should become so enraged with his opponent as to do him physical injury. Fear of Taua's punishment, an affliction of tumors under the arm and on the stomach with possible death from these sicknesses, was sufficient to restrain those with short tempers.

At an agreed signal, pairs of opponents wrestled for possession of the *kaio* stick. Whenever a man wrested the stick from an opponent, he placed it on the ground to mark the boundary for the moment. When one contestant relaxed, his vis-a-vis was in honor bound to stop wrestling and place the stick on the ground until the other had recovered breath. The expression "Yoka ki lalo te kaio ke makeke, ke wakamanava" (Thrust the *kaio* firmly down—into the ground—to rest) refers to this act. One might insult, grimace at, or threaten one's opponent, one might twist the weapon from his hands, edge his hands off the two ends of the stick, throw him off his balance by wrenching or twisting the stick or by grasping him round the waist—do anything in fact to secure possession of the stick save shed blood. At the end of the day the pushing was ended by mutual consent, and the provisional boundary line was marked by sticks or stones joining up the points where each weapon rested on the ground. For seven days or more this wrestling was continued, and when it was finally stopped, the line drawn from one weapon to the next was taken as the final boundary between the three villages. Insofar as the line of weapons was crooked, depending on the fortunes of the members of each village throughout the contest, so was the boundary line rambling.

At about the same time as the *tutuki* contest for village boundaries on Wale, further *tutuki* were held on Motu Ko and Motu Kotawa to decide village control of these reserves.

On Kotawa, the men from the three villages lined up and struggled as before. The Yato men had driven the other two villages as far as the reef joining Kotawa to Ko, when hard feeling arose and Loto men began to use their weapons as clubs, felling some of their opponents and drawing much blood. Just then a huge eel was seen swimming along the reef with wide open jaws as if ready to devour the wrongdoers. All the men became frightened at this apparition, which was either Taua in an animal incarnation or an animal sent by her to frighten the people. Yato men ran back onto Kotawa, while Loto and Ngake men fled along the reef to Ko. Hence Yato claimed control of Kotawa through ultimate right of possession, and this claim was conceded by the other two villages.

A contest was then held on Ko between Loto and Ngake to decide ownership of this reserve. After much struggle, a boundary was drawn on the reserve, such that Loto received a small section of the western end of the islet and Ngake a larger section at the northeastern end. This arrangement continued until some generations later when an arrangement was effected whereby certain lands on Wale belonging to Ngake were transferred to Loto's reserve of Uta in consideration for Loto's withdrawing entirely from Ko. Though the arrangement was actualized, there was dissatisfaction among some Loto men at the time, a feeling which still continues, Loto villagers thinking that an effort should be made before a Land Court to secure the return of land on Ko.

The *tutuki* contest was probably used at various other times in Pukapukan history to readjust boundaries when a shift or increase of population in the village made it imperative that one village should have more land. There are vague references to *tutuki* contests in traditions, but the one that settled boundaries much as they are today is that which is best remembered.

There are no boundary walls on Motu Ko or Motu Kotawa. Heaps of stones scattered across the ground are the only traces of the boundaries of

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

the two reserves on Wale, Niua belonging to Yato and Uta belonging to Loto, once marked by encircling walls of coral.

The wall (*pa*) surrounding the three land boundaries of Uta (the fourth boundary being the outer beach) was made of slabs of coral conglomerate set on edge, and served not so much to bar entry as to mark off tapu land from land over which all might walk. Those having legitimate business in the reserve were supposed to enter through one of the three gates or breaks in the wall; one (*te pa i te uta*) near the present residency, the second (*te pa i Matala*) at the site of the present watch house at Matala, the third (*te pa i te tukunga tuae*) on the western side.

The stone wall round Niua ran from the head of the western indentation of the lagoon, the present fish pond, northward to the outer beach. There were two gates through this wall, one (*te louvi alo hi tai*) at the lagoon end of the wall, and the other (*te louvi tua hi tua*) at the outer beach end of the wall. In some symbolism that informants could not clearly remember the lagoon end is called "the belly of the *louvi* (a strong ferocious fish) by the sea", the outer beach end "the back of the *louvi* by the outer beach."

The stone from both walls was freely used to build coral lime houses in the days of the early missionaries.

VILLAGE GUARDS

Village control over reserve food lands was implemented by tapus enforced by supernormal powers of village gods and by a guard of men called *pule*; these tapus were directed against outside villagers all the time and were lifted against home villagers only when it was decided by village council to take food from the reserves. When the tapu was raised the guard or all the people of the village were allowed to go to the reserve to collect a fixed amount of food. Visits to the reserve at other times for the purpose of cultivating talo beds were always by permission of the guard. The gods of each village interested in preserving the reserve from thieves sent sickness and other punishments to those who violated the sanctity of the reserve (p. 311).

Both Yato and Loto villages have a well-organized guard which watches the reserves on Wale throughout the year. Ngake, with no reserve on Wale, does not have an organized guard system. Individual villagers, often older men who are not tied down each day with food-procuring duties, are delegated to watch the reef between Wale and Motu Ko and to examine wayfarers along this reef coming from the direction of Motu Ko to see that they are not smuggling stolen foods into Wale. These single guards also watch canoes on the lagoon coming from the direction of Motu Ko. All Ngake canoes are required to beach at Waletoa, where they are examined for contraband articles by older men living at this place before being allowed to land their canoes elsewhere.

In Loto and Yato, all men who have reached sociological adulthood are drafted for guard duty. In Loto there are about 50 men able to serve as guards. Each guard is composed of about 25 men, serving for one month. Formerly only men served on Loto guard, but in recent years, when it was

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

not illegally fishing and that they were not stealing from the reserves. Incidents of this period are told in the stories of Tuiva and Kupolu, and in the story of the *pule toa* (pp. 367, 395).

Numerous references in the stories and traditions of the island show that stealing from the reserves was an ever-present problem that challenged both supernatural and secular supervision of these reserved areas. The only major sin in Pukapukan society seems to have been stealing from the reserves; beside this, all other types of antisocial conduct become mere peccadillos. Where the law breaker meekly accepted punishment, secular or supernatural, all was well, but a thief surprised by a guard and resisting arrest either in shame or in desperation might be killed outright in the succeeding brawl. Several ancient graves on Motu Ko are still pointed out as the graves of thieves who were surprised on the reserve and killed.

TALO BEDS

The center of the reserve of Uta is a communal talo bed controlled by the village of Loto (pl.1,*B*). This large area is subdivided into 11 smaller areas (*ui lulu*), named after nine land divisions in the reserve. There are four similar *ui lulu* in the reserve of Niua. The people of Ngake have more than 15 large talo cultivations on Motu Ko.

Tradition states that the main talo beds on Wale were formed originally by Tumulivaka, son of the god Mataliki. Tumulivaka became troubled in his heart at the number of gods who were taking up residence on Pukapuka. He wished to be separated from the gods, so he stood at Te Auma, the northern point of Wale, and stuck his foot in the sand. This made a big separation or channel in the land from Te Auma to the pond, Te Veitaua, in Ngake village, and thence to the sea. As this follows the line of the present talo beds, it is common to refer to these beds as Te Alanga-vae (Striking-of-the-foot). Mataliki with his wife and the gods lived on the western side of the division, *te mull tuvasa*, so called because it faced the setting sun, while Tumulivaka and his sister, Te Matakiate, lived on the eastern side, *te mata tuvasa*. As the island became more populated, this natural excavation, widened and deepened in places, was used for talo beds.

It is probable that the first migrants to the atoll found natural hollows in the land, caused by wave action when the atoll was being built up above sea level, and used these hollows as the basis for the talo beds. Successive generations continued the work of excavation, no light task with coconut shells, coconut baskets, and digging sticks as the only implements. Subsurface water seeped in and rain water helped to rot the artificial fill of dried coconut midribs, *hotuwa* ferns, and other plant material into a humus soil, which became in time excellent soil for talo cultivation. The results of the excavations are seen in the raised embankments (*tua motu* or *tua ui*) which follow the line of the talo beds and divide one bed from the next. That natural hollows were first used as beds is indicated by hillocks about 40 feet high running beside some beds. It is impossible to imagine that

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these hillocks were raised as the result of human excavations with such primitive implements.

Traditions state that the talo beds on Motu Ko were started by the migrants from the legendary land, Yayake, and were continued later by the Pukapukans after the people of Yayake were all killed. Both on Wale and on Motu Ko, excavations continue to this day. The beds that a man digs out are his own property during his life; on his death they are passed on down the paternal descent line. Picks and shovels borrowed from the resident agent help to render excavation today less laborious than it must have been in earlier times.

The village-controlled talo beds (*motu*) are separated into three divisions, one each for the men, women, and children of the village. Each year the number on the village rolls is altered through birth, death, the addition of those attaining sociological adulthood, and affiliation (*tau*) of new members; and a redivision is made of the beds of the members of each class on the village roll. The shares of dead adults are taken by new adults (*wakatane* and *wakawawine*), whose shares in turn are given to new-born children. This redivision (*kotikotinga*) is made by a village meeting at the talo beds. All attend, even children, as a matter of course. The argument, discussion, and division are carried out by the guard and elders of the village; sitting on a near-by hillock, the others watch and assist with free advice and witticisms.

The new boundaries are marked by stones and coconut midrib butts. These soon fall down, but not before the new divisions have been memorized. The actual size of the village allotments varies somewhat from year to year, but in general a piece of land about 3 yards square is the average size of the division for man, woman, or child. Twice a year all the village women gather leaves and plants to fertilize the beds. Each adult cultivates his and his children's land how and when he pleases. The guards inspect the reserve land beds each month and fine each cultivator who has allowed his land to get weedy. The appropriate fine of three pennies or six mature coconuts is kept by the guards for their trouble in levying and collecting it.

The system is flexible and seems to work well. Each household receives an amount of talo land commensurate with its size. The system insures that none shall starve while others hoard up lands they cannot cultivate. Supervision by the guards keeps the land in good condition. The talo beds that a household derives from these village lands are supplemented by lands owned through lineage descent.

Paternal Lineage Property

Lands within village boundaries not controlled by the village unit are controlled by the paternal and maternal descent groups. On Wale, each paternal lineage (*fo*) controls a section of land (*henua*) of indeterminate

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[421] width, depending on the amount of village-owned land and the number of
613 paternal lineages that share in the division. Each section runs from lagoon
423 (*tai*) to outer beach (*tua*) missing out the taro beds and reserve lands owned
311 by the village. Thus the sections of Ngake run straight through from *tai* to *tua*; those of Loto run to Uta, then stop and pick up the line again on the northern side of the reserve whence they extend to the outer beach.
[714] The cemeteries of each paternal lineage and of each sub-lineage are situated on the section of the lineage. Through patrilocal residence, all male members of the paternal lineage reside on another part of the same section of land. The *kaina* are named for the paternal lineages.

Besides the two sections running from *tai* to *tua*, the paternal lineages of Loto also own smaller sections in Uta. Four land divisions on the western side of Uta are controlled by the sub-lineages of the *fo* i Tua. The names of these divisions (*na kaina i te tama lalo*) are: Te Pa, Taikaiana, Te Welo-i-te-kilikili, Te Auma. Four divisions (*na kaina i te tama ngake*) on the eastern side of the reserve are divided among the sub-lineages of Yangalipule *fo*. Their names are: Te Utu, Wale-kakala, Te Weli, Te Pungua.

[361] The lineage sections of Yato run from *tai* to *tua* on the strip of land east of the causeway, the only site of Yato in former times. Ngake informants recognize none other than these; Yato informants, feeling that the transfer of part of the village to the site west of the causeway and the opening up for residence of what was formerly tapu land enable them to speak legitimately of further sections in this western extension of Yato, state that by fiction if not by tradition, the three Yato lineages have second strips running from lagoon to Niua in the western section of the village.

421 The coconut trees, taro beds, and bush timbers on all sections are of two
613 kinds: first, those owned by the people of the lineage *in* common and shared
241 among all members; second, those individually owned by male and female
428 members of the lineage who alone are allowed to plant or to own trees on the section. Coconut trees of the first type descend in the lineage corporation and are not alienable. Trees of the second type are inheritable among individual members of the lineage, but are not alienable outside of it.

423 Each section (*kaina*) is further subdivided into homestead lots named
613 *yikaanga*. These lots are the subdivisions of the sections on which, in gen-
692 eral, male members of the paternal lineage live with their families. Through marriage, adoption, choice, or inheritance of a house, people of different lineages come to live together on the same homestead lot, but the tendency is for all living on the same lot to be related by some kinship tie, close or remote. Only people belonging directly to the lineage that owns the section on which the lot is located may plant or privately own trees or taro beds or be said to own house sites on the lots.

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The boundaries between the lineage sections and between the homestead lots are well marked by stones, coconut and *pukamo* trees, and graves of ancestors. There is no record that a guard similar to the *pule* was used to protect these boundaries, which are nevertheless well known, well kept, and respected.

If a boundary tree dies or is blown down, another is immediately planted in its place and tended until it becomes an efficient boundary marker. People of the lot use only the trees growing on their own household lots for domestic purposes. If a nut drops from a tree growing on a homestead boundary and falls on the land of the next lot, it must be procured at once. If it is allowed to remain to grow into a tree across the boundary, the tree belongs to the man on whose land it grows. A person in theory has the right to keep nuts that have fallen on his property from trees growing across the boundary, but this is rarely done.

At the death of the household head, his house site and nut trees descend in the paternal line. The children of the deceased act as joint owners of the property through the trusteeship of the eldest male of the family. A man or a woman who may marry and live away from his or her paternal lot still has a claim to the nuts grown on the lot and expects to draw nuts from that lot in an emergency. Children of a man residing matrilocally retain an interest in their father's paternal lands. Children do not normally inherit coconut trees from their mother. According to Mitimoa, it was formerly the custom to divide coconut trees among men, giving them to women only when there were no sons in the family, but the custom today is to share coconut trees among both sons and daughters so that none will ever be deprived of nuts.

In former days, a well was sunk on each homestead lot for the use of the households living on the lot. Three lots in Yato still have their own wells, each used by the people of the lot. Others may draw water from these wells, but through courtesy right only, I think. If the water level in the well is low, outsiders drawing water are regarded with a somewhat unfriendly eye.

No story or legend is remembered which relates how the lineage sections or lots were originally formed. Pau believes that the paternal lineages of Ngake held *tutuhi* contests at various times to settle boundaries, and cites as evidence the very irregular boundary lines. Loto informants have no memory of *tutuhi* for the Loto sections, and add: "The Loto sections are so small and short, running across Wale as they do at its narrowest part, that they would not be worth quarreling about—the gain to one paternal group at the expense of the other would be so slight."

As a matter of speculation, it is likely that originally the people of the same paternal lineage congregated together on the same piece of land. Cemeteries would be placed there and boundaries marked off. Thus sections of land would come to be associated with certain lineages. But through patrilocal marital residence and personal choice,

[591] 623 613 people other than blood members of the lineages would come to live on the sections. To protect the food supply of its own blood members, the lineage might well make the rule that certain nut trees were to be shared among all associated with the constituent lineages through blood, marriage or choice; whereas only members of the lineages by blood or adoption might plant and own trees on the *kavo* section. This would prevent the removal of wealth from blood members of the lineages by friends and distantly related affinal relatives, who might come to live on the section. The land is thus effectively owned in common by the lineage corporation, though sole right to the produce of the trees remains with individual members of the corporation.

613 423 244 428 616 Both paternal and maternal lineages, the *po* and the *uua*, control small sections of talo beds. There is no legend as to the origin of this control. These beds were probably dug first on land controlled by the paternal lineage or by the maternal lineage if the maternal descent group was originally a more important unit of social organization, as evidence seems to indicate. Then, as new paternal or maternal lineages were set up by the breaking away of men and women from the basic groupings, certain talo lands were transferred to the new, minor lineages, from those controlled by the major group. The twenty-three talo gardens on Wale owned by the paternal and maternal lineages are all named. These gardens are divided among male and female members of the lineages. In the next generation, children retain a share in the mother's maternal lineage beds, but receive no shares in the mother's paternal lineage beds. Similarly, they retain shares in the father's paternal lineage beds, but none in his maternal lineage beds. The talo lands are controlled by the lineages as corporate entities, and are redivided from time to time to include new members of the corporation.

Individual Property

421 556 The wealth objects controlled by the individuals are few. A man may own a house and a house site, a canoe, fishing gear and implements, clothing, pearl-shell ornaments, trees, and talo beds. A woman owns mats, prepared

422 pandanus, ornaments, trees, and talo beds. Small canoes, one-piece dugouts

226 or plank canoes, are owned outright by one man. Larger canoes which have required much time to make and wealth to finance are owned by household groups, or groups of closely related kin. The oldest man of the kin group is spoken of as the nominal owner of such a canoe, but all the members of the group refer to it as "our canoe". If relatives or friends wish to use the canoe, they ask permission of the nominal owner. A young man who does not possess a canoe of his own borrows one from a friend. When the fisherman returns, he gives fish, usually the best and biggest of his catch, to the owner of the canoe in payment for its use. The fish reserved for this payment is termed *ika ya* (sacred fish). When one man is invited to accompany another in a fishing canoe, there is an equal division of the catch and no payment of *ika ya* is expected from the guest member of the canoe.

Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

Informants stated that in former days there were fewer canoes than today. A tapu (*lauí*) for protecting a canoe tree was instituted by making four cuts on the bole of a tree, about 6 feet from the ground. Most canoes, especially the large ones, were the property of the paternal lineage groups, each of which might own from one to three canoes. As the canoes belonged to the corporate entity, no problem of inheritance arose.

The ownership of nut trees has already been mentioned. Like trees in the reserves, individually owned trees are protected by a tapu of a coconut midrib. *Pukama* trees are also individually owned and are very valuable in that the leaves provide the best plant material for fertilizing (*wakalepo*) the talo beds. *Pukama* and coconut trees are planted over the buried afterbirth of the new-born child along the boundaries of homestead lots. Individual control of *pukama* trees is carefully guarded. During the season for mulching (*wakalepo*) the talo, it is not uncommon for two women to enter into physical encounters over rights to *pukama* trees which both claim to control.

Individual named talo beds (*ui tangata taki tai*)—twenty-two in all on Wale (see pl.1,*A*)—are inherited in the male line, or according to bequest. They have been excavated and named by individuals in the past. Some of the names of owners, as given by informants, refer to living people, others to the original makers of the beds, one or more generations back. Few Ngake talo beds remain on Wale; most private beds were situated close to the old site of Ngake village at Utupoa, and were destroyed by the tidal wave that overwhelmed the village in 1914. The beds were filled in with sand, and have since been planted with nuts; new talo beds are being excavated now on Motu Ko.

Inheritance of other items of personal property is according to rule or by right of bequest (*wakawiti*). When an individual dies, much of his property—adzes, pearl-shell hooks and ornaments, malos, sleeping mats—is buried with him. If he dies intestate, all that remains after the survivors have fulfilled the last duties to the deceased is divided among the children, blood and adopted. When an individual has made a bequest before death, his property is divided accordingly. Fear of retribution by the spirit of the deceased if the terms of the bequest are not strictly carried out insures that the last wishes of the dying man will be fulfilled.

The house is generally inherited by children or paternal male relatives of the deceased. Two exceptions in which the house was inherited by the wife of the deceased came to light in the census.

In one household in Yato, the mother is a Loto woman, twice married. Her first marriage was with a Yato man, and residence was patrilocal. When her husband died, the widow inherited the house and occupied it in Yato. When she remarried, her second husband came from Ngake to live with her in this house. In a household in Ngake, a widow and her children continue to reside in the deceased husband's house. The widow is referred to as the owner of the house, but since her children are young,

1:Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

245 In husking (*yoka*), a nut is brought down on the point of the stick so that the line of penetration is through one of the three longitudinal ridges (*paunga*) in a horizontal plane. A longitudinal section of husk is removed by levering the nut outward and downward from the stick, and the process of impaling and levering is continued until all the husk is removed. When it is desired to preserve the edible husk (*mukomuko*) much care is taken and the husk is torn off (*yakili*) gently rather than levered off in large sections.

Drinking nuts are husked completely smooth (*yoka molemole*) or so as to leave a longitudinal strip of husk attached to each nut (*yoka ma te kayani*). A thin length of fiber is raised from this strip. Pairs of nuts are tied together (*kayani*) by these fibers, making it possible to throw them over a rough carrying pole (*amonga*) of coconut midrib and thus conveniently carry (*amo*) them from the bush to the home.

245 A heap of *yakali* nuts gathered together from the ground where they have fallen is termed *putunga* (pile), whether it is a large or a small heap. Reference to these piles is in terms of the number of nuts gathered, whether 100, 200, or more. Thus a man asks about a pile of nuts, "Na ai te lau nei?" (Whose hundred is this?).

264 The husked drinking nut is opened by piercing or by cracking:

The eye (*mata*), which is in the widest of the spaces between the three longitudinal ridges on the surface of the nut and which is filled with soft tissue through which the nut sprouts, is pierced (*take*) with a coconut leaflet midrib or with the pointed end of the *kalokalo* implement. To open the nut by cracking, it is held in the hand and the shell at the base (*mulimuli*) is cracked against a stone. When done by a skillful hand, the base of the nut cracks evenly all around and is lifted with the fingers without loss of the liquid. Today nuts are more often cracked by three sharp blows with a knife blade on the base. After the liquid is drunk, the nut is broken open (*wowo*) by knocking it against a stone. The soft flesh is scooped out with the thumb and fingers; harder flesh that does not yield readily to the pressure of the thumb is scraped out (*wakamataka*) with a scraper (*kalokalo*).

TALO

244 The following named varieties of talo are indigenous to Pukapuka: 137 *mawolawola, wakawotu, wakena, kele, pongi* (slow-growing species), *pelewa,* 177 *talaki, kalelea, newunewu* (slow-growing species), *kula, kiekie, uli, koyikoyi.* All are grown on Pukapuka today save *talo koyikoyi* which was practically all destroyed by the tidal wave of 1914. Introduced varieties are named after the land of importation; as talo Tawiti (Tahiti), talo Polapola (Bora-bora), talo Niue, and so on.

244 The origin of talo and *pulaka* in the world is recounted in the story of 773 Maui (1). Some informants incline to the belief that only one variety of talo was introduced by the gods in the first place and that all other varieties sprang from this one by some power of the gods—a rationalization perhaps 244 of the fact that strains of talo are so mixed today that it is hard to grow 423 one true to type. This causes trouble on talo bed boundaries. One woman plants one variety on her boundary, and her neighbor plants another variety on her side of the boundary, hoping thus to keep the boundary between the

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

244 two beds well demarcated. When the talo grows, however, the two varieties
123 are often so intermixed that the boundary is unclear. A single talo bed may
1 be planted with one variety or with several varieties planted in sections
running crosswise over the bed.

244 Any and all of the varieties are used indifferently in preparing the talo
362 dishes. All are considered equally fertile. The only reason for planting
one variety rather than another is to get the benefit of the slight differences
in taste and flavor between varieties.

244 Native terminology for talo and *pulaka* is:
Pulaka: the whole plant.
192 Talo: the whole plant.
Wawa: old name of the talo corm; wawa is used interchangeably today with talo for both plant and corm.
Kau a pulaka, kau a talo: the petiole.
Tingapulo: the cutting, top section sliced off the mature corm with petiole and leaves.
Lau talo: talo leaf.
Laumau: pulaka leaf.
Lito: delicate young leaves protruding from the base of the innermost talo leaf.
Pitopito: the lateral cormlet or sucker produced at the side of the corm and bearing a crown of leaves.
Alu: root.
Wulawulu: rootlets of the corm.
Palapala: swampy mud in which the plants are grown.
Ui talo, ui pulaka: bed or garden.
Wau: talo bed of a single man, woman, or child in communally owned talo land.

There is no elaborate garden magic in the planting and cultivation of talo. New moon planting was favored to produce plenty of talo with large and good-flavored corms. Full moon planting was also good, but after a few replantings the corms tended to grow smaller. Formerly a bed was stripped (*awaai*) and replanted at the new moon, but a few tubers were removed (*uutuuya*) from a field at any time.

The complete process of going to the garden, harvesting, planting, and bringing home talo is termed *lopo mauna*.

144 When a woman or girl goes to the talo bed, she takes with her a coconut-leaf
782 basket (*kete kaumia*); formerly also, a turtle-bone cutting implement (*taku*). She re-
412 moves the mature (*kiki*) corms by the yellowing and curling up of the leaves. She pulls out (*laupa*) the talo plant and slices off (*lopo*) the top section, tossing the corm to the embankment of the bed. She loosens the soil from which the plant was pulled, digging it up (*tohi*) with a stick (*kopa ai*). She slices most of the leaves from the petiole, usually leaving one leaf, and sets the cutting back in the ground. She tramps the soil around the slip to make it firm, planting in rows, not in hills. She throws the leaves stripped from the petioles back on the ground and tramps them into the soil. She repeats the process until she has sufficient tubers. When a whole bed is being stripped by two workers, one pulls the corm and throws it to the side; the other cuts the top section from the corm and throws it back to the harvester, who replants it. In former days after harvesting sufficient talo, the worker set aside from 4 to 10 corms for the gods of the garden, saying, "Matuloma e, Matuloma e, here is your share of talo to help increase the yield of my garden." Then the cuttings from these corms were

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

Stone Seats

Formerly a man might make on the outer beach a stone seat (*tokewe-langi*) on which to rest in the cool of the evening, eat the evening meal, and sleep. Informants stated that the two Pukapukan voyagers, Tonu and Taea, saw stone seats on the island of Wakalava and introduced the idea on their return to Pukapuka.

There was apparently much latitude in the way these stone seats were built. Some were built with a stone seat, stone back rest, and a slab at either side for an arm rest; others were made by hollowing out a shallow depression in the sand and facing the bottom and sides of the depression with coral slabs. The sides were inclined at an angle of about 10 to 15 degrees to the bottom; the bottom was at least 6 feet long, and 3 feet wide, wider if a man planned to take wife or sweetheart to sit with him. Other seats were made according to fancy. Each seat was named after its owner and served as a symbol of his prestige. No seats are used today, most of the stones having been used for oven stones: missionary teaching does not countenance the use of stone seats on lonely outer beaches. Macgregor's statement (20, p. 25) that the idea of these seats was brought to Pukapuka by the people of Yayaku and that they were used by priests as religious structures for the offering of turtle and fish to the gods received no support from informants who were strongly of the opinion that the seats were places of rest and recreation only.

The stone seat on the southeastern outer beach of Motu Ko, which tradition states was used by the bird man Wuto-ananuva-uni, is now in ruins. The remains of other seats lie close by. The outer beach has been elevated at this place by the piling up of coral gravel through wave action and the ruins of the seats are situated well under the lee of the raised beach. To have been useful as cool resting sites, the seats must have been built before this beach was elevated. The ruins consist of fragments of stone 1 to 2 feet square. The original stone seat, suggested informants, has been gone for many generations, washed away by high seas. A later generation built on the same site, but these seats were mostly destroyed by the seas; those that remained were pulled down under missionary influence.

Walls

Stone walls marking the boundaries of the reserves (p. 35) have now almost disappeared, but remnants of the wall round Uta are to be seen at the place Matala. The wall consists of large slabs of coral conglomerate set on edge. The old gate (*pu*) through this wall still remains. It consists of a gap about 2 feet wide marked on either side by a stone reputed to have been carried there by the warrior Kupolu. One stone is 7 feet wide, 8 inches thick, and 4 feet 8 inches above ground; the other is 7 feet 8 inches wide, 22 inches thick and 4 feet 4 inches above ground. Each stone is set about 3 feet in the ground. The size of the stones, if typical of all the stones forming the wall, indicates the great labor of building the wall.

House Foundations

The use of small coral slabs set on edge to form the boundary of the house platform and the use of coral pebbles to form the house floor is described on page 116.

1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

613 616 [582] 171 transferred to the smaller sub-lineages, took the place of exogamy in moiety and lineage. As long as there was one lineage in the *aau*, the *aau* was exogamous. When many sub-lineages developed within the *aau*, the sub-lineage still remained exogamous but not the lineage, since blood relationship was closer, owing to consanguinity, within the simple sub-lineage than within the wider grouping. This is admittedly speculation, but it explains the manner in which the fundamental pattern of exogamic matrilineal groups, so widespread in western Oceania, may have developed in the evolution of Pukapukan society.

613 The maternal lineage functions as a unit in fishing and sporting contests, and in certain types of food divisions. (See pp. 231-232.)

616 226 378 Some informants believed that the four major lineages divided into two moieties (each called for this purpose *vakatai*) once formed fighting units occasionally opposed to each other. Such a moiety fighting force had no organization and was commanded by a selected warrior (*toa*). Other informants stated, however, that there is no record in Pukapukan history of such fighting as this arrangement would suggest, with all the men of the island engaged in pitched battles. This is certainly true; Pukapukan fighting in general seems to have been a matter of one age group tyrannizing over another group, petty murders, guerilla revenges, and killings by violent chiefs. More important conflicts over land boundaries were always decided on a village basis, with no scope for moiety division. It is possible that moiety divisions for games and contests were at one time more customary than single lineage divisions, and the belief about fighting units is merely an extension of a type of organization, which, in terms of Pukapukan patterns, represents the most reasonable division to cover warfare were it ever a matter of importance to the community.

616 613 423 244 Today the maternal sub-lineages, not the lineages or moiety groupings of lineages, have effective economic functions in the control of land, principally the control of talo beds. The talo beds owned by a sub-lineage are divided among both male and female members of the sub-lineage. There is no permanent subdivision of these talo beds; but they are divided at regular intervals as composition of the sub-lineage corporation is altered by birth and death. The ultimate controlling unit of the sub-lineage land is, of course, the major lineage; when a sub-lineage dies out, the talo beds are redivided among the remaining sub-lineages of the group.

613 672 696 681 Formerly the sub-lineage assumed collective responsibility for antisocial actions voluntarily or involuntarily performed by its members. This is clearly brought out in historical stories relating to homicide (1). When a man commits manslaughter such that the island as a whole concerns itself with retributive punishment, his maternal sub-lineage either allows itself to be punished along with the guilty individual or else assumes responsibility for the punishment or suicide of the murderer. When punishment by drowning is decreed, members of the sub-lineage may feel the disgrace so keenly that they will bury the body secretly by night, even though in so doing they oppose majority opinion and would be severely punished themselves if discovered. That it is always the maternal and not the paternal sub-group which is charged with responsibility in these matters, stresses the strength of relationship ties based on maternal descent.

the village. They have been abandoned for many years, and houses now stand on many of them. The high chief's burial marae has been preserved as a modern cemetery (pl. 1).

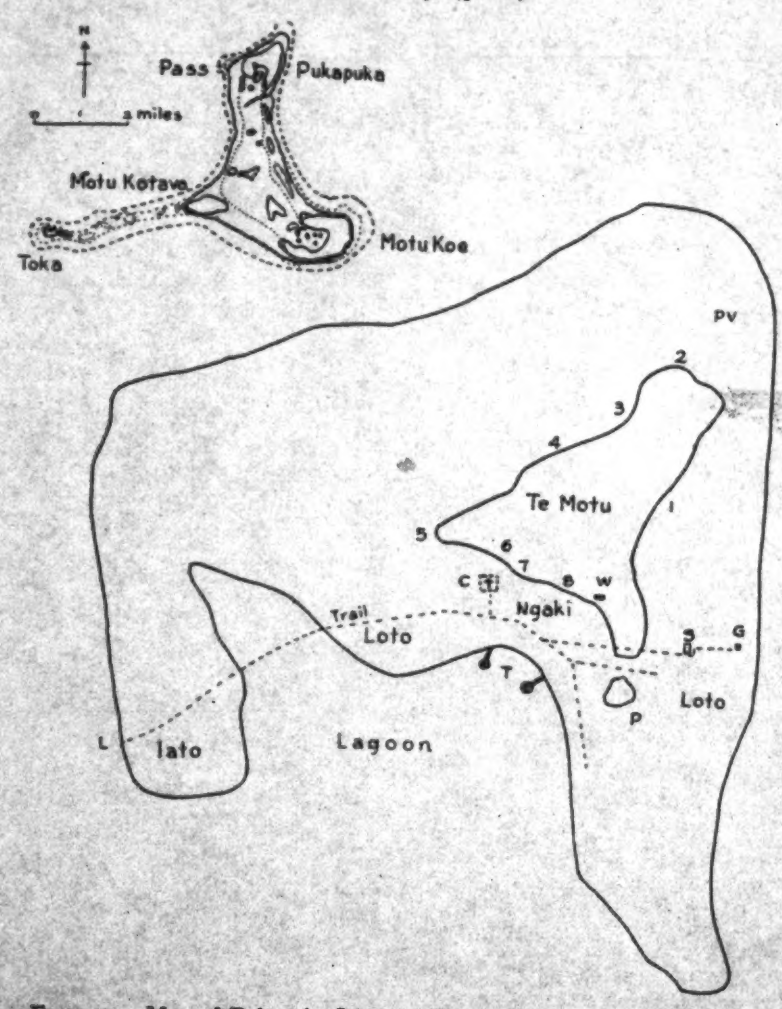

FIGURE 1.—Map of Pukapuka Islet showing village sections and land holdings: Te Motu, communal taro lands of Loto section; *G*, resident agent's house; *L*, landing place; *P*, puraka patch; *S*, school and meeting house; *T*, toilets over lagoon; *W*, watchhouse in taro patches; *C*, church; *Pv*, Loto plantation villages. Small plantations and land divisions: 1, Te Utu; 2, Walakakala; 3, Te Wela (Vela); 4, Te Puapua; 5, Te Auma; 6, Te Velo o te Kilikili; 7, Taikaina; 8, Te Pa.

2:Macgregor E-2 (1933) 1935 Pukapukans

Land Divisions

Pukapuka Islet is divided into several districts. Their names in order, from the eastern tip (Matautu) to the western tip (Matauea), are as follows:

1. Matautu
2. Niutaulele
3. Teliakinala
4. Waiua
5. Wonio
6. Te Ionga o te peu
7. Wangawanga
8. Kokoloa (eastern group of houses on beach)
9. Te A (western group of houses)
10. Walewu
11. Matapoko
12. Tealapalaknla
13. Teaua

The land of the islet outside the village is divided into sections used by the community, kindreds, and individuals. The main portion of the plantation and garden land is Te Motu and belongs to Loto, the central section of the village. On the northeastern shore there is a settlement of huts to which the Loto people go while working in their land. The heart of Te Motu is a great communal taro pit in which every Loto man (*akatane*) and woman (*akawawine*) has an equal right. Around it are eight land divisions of smaller taro patches and coconut plantations (fig. 1). Between the road and the southern side of Te Motu are pieces of land on which there are houses or coconuts and a few taro patches. All but one of these pieces belong to individuals and are inherited by the children from their parents. The names of these lands are:

1. Utupoa
2. Teneku
3. Angialulu
4. Paepae
5. Kiki
6. Oaletoa
7. Umalolo
8. Amanaia
9. Utulei
10. Tangalepule
11. Taiotaupapa
12. Kaiue
13. Telimatini
14. Tekolo
15. Mataniua

It was not possible to go over all the land divisions of Pukapuka Islet or the two southern islets to examine the extent of the divisions and to see whether Iato and Ngaki had pieces of land owned by individuals. It is certain that the entire atoll is not owned communally by the village, although the ultimate control and use of the land rests with the chief council. On Pukapuka Islet individuals, or perhaps kindreds headed by one individual, have pieces of land whose products and ownership are not regulated by the village council. This may be true of the two other islets, which are divided into several pieces;